

CONSTRUCTED RESPONSE #5

I. WE KNOW THAT THE
BASKETBALL RECORD
IS 24 POINTS.

2 OR 3 POINTS ARE
ASSIGNED FOR A
FIELD GOAL.

II. WE HAVE TO DESCRIBE
THE FOLLOWING SITUATIONS
USING LINEAR INEQUALITIES
IN 2 VARIABLES AND/OR
LINEAR EQUATION

(a) RECORD STAYS THE SAME

(b) A TIE

(c) NEW RECORD

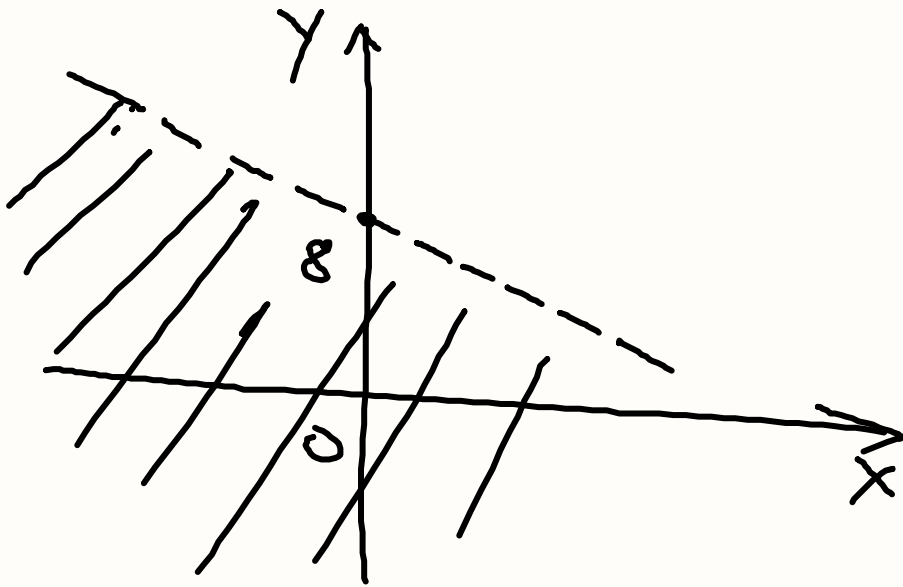
III x - SHOTS WORTH 2 POINTS
 y - SHOTS WORTH 3 POINTS

$$\textcircled{a} \quad \begin{array}{rcl} 2x + 3y < 24 \\ -2x \quad \quad -2x \end{array}$$

$$\begin{array}{rcl} 3y < -2x + 24 \\ \div 3 \quad \quad \div 3 \quad \div 3 \end{array}$$

$$y < \left(-\frac{2}{3}\right)x + 8$$

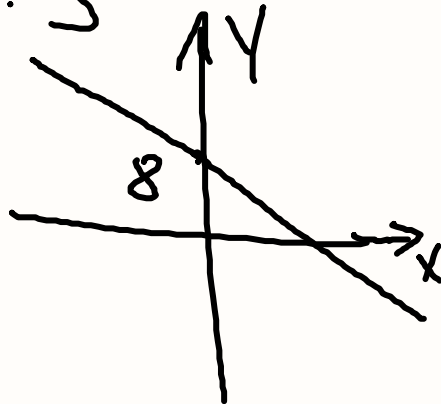
$$y < \left(-\frac{2}{3}\right)x + 8$$



$$\textcircled{B} \quad \begin{array}{rcl} 2x + 3y & = & 24 \\ -2x & & -2x \end{array}$$

$$\begin{array}{rcl} 3y & = & -2x + 24 \\ \div 3 & & \div 3 \quad \div 3 \end{array}$$

$$y = \left(-\frac{2}{3}\right)x + 8$$



$$\textcircled{c} \quad 2x + 3y > 24$$

$$2x + 3y \geq 25$$

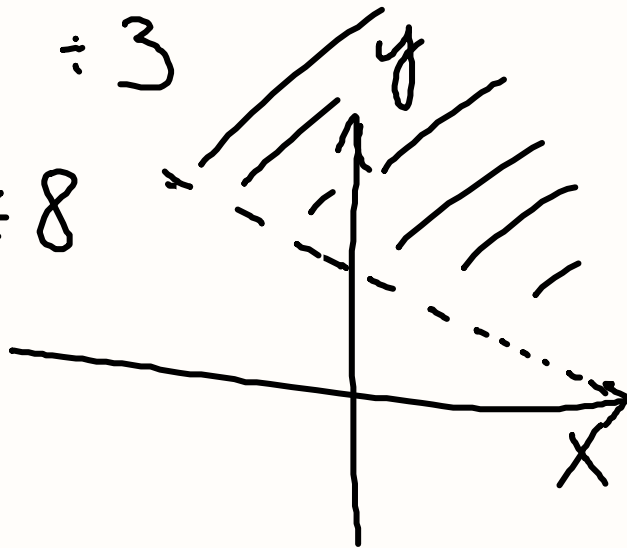
$$2x + 3y > 24$$

$$\begin{array}{r} -2x \qquad -2x \\ \hline \end{array}$$

$$3y > -2x + 24$$

$$\begin{array}{r} \div 3 \qquad \div 3 \qquad \div 3 \\ \hline \end{array}$$

$$y > \left(-\frac{2}{3}\right)x + 8$$



$$\begin{array}{r} 2x + 3y \geq 25 \\ -2x \qquad -2x \end{array}$$

$$\begin{array}{r} 3y \geq -2x + 25 \\ \div 3 \qquad \div 3 \end{array}$$

$$y \geq \left(-\frac{2}{3}\right)x + \frac{25}{3}$$



IV

(a) $2x + 3y < 24$

RECORD IS THE SAME

(b) $2x + 3y = 24$
TIE

(c) $2x + 3y > 24$ NEW
OR $2x + 3y \geq 25$ RECORD